471 and supplemented. Tihwa, T'a Ch'eng, and Sui-ting have become principal "industrial" centers boasting of leather tanneries, flour mills, and auto repair and small parts shops. Concentration has, where possible, been put upon the installation of utilities in these and other major cities, and electricity, telephone, and telegraph facilities are now well established. In 1939 it was reported that there were twenty Sinkiang factories of various kinds, including tanneries and mills and a soap factory.

By the close of 1942 a new textile mill capitalized at one million taels was in operation in Tihwa, the province had a sizable iron and steel plant, and new sugar-refining and canning factories were in process of [377] construction. With the aid of a large hydraulic plant the electric power of the province had been increased by this date to 28,000 kilowatts. [214] Public printing offices have been opened at such widely separated points [204] as Tihwa, T'a Ch'eng, Kashgar, Sui-ting, Aqsu, and A Shan, and the *Sinkiang Daily News* is being published in Tihwa.

Communications

206 Modern communications have made the province aware of the stirring events in the outside world. Telegraph services were opened between 1893 and 1896 when Emperor Kuang Hsü appropriated 240,000 Chinese taels to construct the initial lines and offices. In the period 1903 to 1913 lines were completed which brought the service to Tihwa, Ch'i-t'ai (Ku Ch'eng-tzu), and the Altai region. Successful experiments were made with a radio station at Kashgar and Tihwa in 1921, and a 250-watt station was installed at the capital in 1930. By 1939 radio stations were located at such important towns as Tihwa, Kashgar, Ch'i-t'ai, Ha-mi, T'a Ch'eng, Barkol, Karashahr, Sui-ting, Kucha, and Aqsu. Under the Sheng Shih-ts'ai regime fourteen new wireless and eight new radio stations are said to have been set up. Under his first three-year plan Sheng put through the rigging up of 672 miles of telegraph wire, the repair of 1,379 miles of old lines, and the construction of 1,350 miles of telephone lines. Through these facilities the Chinese and Russian official news services, Central News and Tass, bring up-to-date information to the provincial capital.

S 316 worked at Kitai (Ku-cheng), Sui-lai, Kucha and Aksu. Table IV shows the general distribution of coal reserves and their production.

c. Reported Fissionable Materials

It has been reported that fissionable materials such as uranium and thorium are produced in Sinkiang province. S [648] It is even rumored that the province is being built up into an atomic arsenal for Soviet Russia and Communist China, although no definite information is available. Perhaps this is an exaggeration, for present means of communication and transportation are below the minimum that would be required for running the complicated machinery necessary for atomic plants. Nevertheless it is pointed out that "...in the city of Arason (A-shan), Ili county, an abundant amount of wolfram and uranium is mined. In Conca (Ku-ch'eng), Urumchi country, uranium is mined. It is reported that in a concealed mine at Ulugcat city on the Russian border of Kasgar (Kashgar), thousands of persons were occupied with mining. Copper, gold, and oil were obtained from the Ulugchat area, and the concealed mining activities show that there are also mined some strategic minerals. (Bughra, Mehmet Emin: Doghu Turkestan, pp. 84-85).

N 377 d. Hydroelectric Power:

Except for the thermoelectric plants of Sian, Lanchow, and Urumchi, no hydroelectric power is known to be in existence in the four provinces of Northwest China. It was reported the Urumchi power plant can produce forty percent more electricity S [377] than the sum total produced in Sinkiang province prior to the recommission of the plant in December, 1953. While this, on the one hand, indicates the inensified production of electricity production in the provincial capitals, like Urumchi, it shows on the other the limited development of electric power plants S in the region of the whole Northwest. A power generator was [377] recently installed in Urumchi, and another at Ulapo in the province of Sinkiang. (KM Sept. 15, 1955). However, a gigantic scheme of water power development is planned along the mid-Yellow River course.

N 377 653 According to Li Jui, a member of the Yellow River planning commission, a plan to tame and exploit the Yellow River, by building forty-six dams from the Lung-yang gorge above Kueiteh in eastern Chinghai and San-men (in west Honan) gorge below Tung-kuan of eastern Shensi for hydroelectric development and irrigation, was passed by the National People's Congress on July 30, 1955. (Li Jui: China's Sorrow will be no more - the Taming and Exploiting of the Yellow River, People's China, August 6, 1955, pp. 9-15). The actual work of the plan to harness the Yellow River was started in 1954. The plans call for two large hydro-power stations to be built, one at Liu-chia

4. Sinkiang

Industrial development in Sinkiang is perhaps the fastest in the entire Northwest. As early as 1950, four Sino-Soviet joint-stock companies were established in Urumchi, of which three were industrial plants. They were: (1) Sino-Soviet Nonferrous Metals Company, (2) Sino-Soviet Rare Metals Company, (3) Sino-Soviet Petroleum Company and (4) Sino- Soviet Airlines. All the Soviet stocks were reportedly transferred to China at the end of 1954, but the Soviet technicians have remained there to help train the Chinese workers.

After the Communists took over, the Sinkiang Petroleum Company has been greatly expanded. Its crude oil output in 1955 is said to have been sixty-three percent higher than in 1954, and deep testing wells were being sunk in five new districts in the Gobi Desert to investigate their oil reserves. The five districts are located in the Turfan and Dzungaria Basins in the Sinkiang-Uighur Autonomous Region.

Another important industrial plant in Sinkiang is the July First Cotton Mill, which began production in 1952. In early 1955, 16,500 spindles and 600 looms were added, which will double the mill's cloth output. The total number of spindles was then over 30,000 and of looms, one thousand. This is the first modern textile mill built in Sinkiang, and it supplies the thirteen nationalities there with a rich variety of fabrics manufactured from the cotton grown in the province itself.

According to the province's initial plans, the investment in capital construction during 1955 is to be increased by over sixty percent as compared with 1954. A total of twelve construction jobs are to be newly built or rebuilt. Preparations are under way for these works. Among the new projects are a modern cement factory, a sulphuric acid factory, a small hydraulic power plant and an oil pressing mill. The cement factory was expected to have its first stage of construction completed in 1956. When completed, this factory will save the state a total of ten million yuan each year in the cost of transporting cement from China Proper. When the sulphuric acid factory starts production, it will supply all the raw material needed for printing and dyeing works by the July First Cotton Mill.

The eight units to be rebuilt in 1955 include the Liu-tao-wan Colliery, the Sinkiang Machine Works, the Ceramic Factory, and the First Cement Factory. When the underground tunnel of the Liu-tao-wan Colliery is rebuilt, it will be possible to produce more coal for the industries and local residents of Urumchi. The output of modern farming tools will be increased when the Sinkiang Machine Works is rebuilt. After a set of automatic equipment is added to the glass workshop of the Ceramic Factory, there will be nineteen additional kinds of new products to supply the market.

Five tractor repair works were under construction in 1955. Each plant will have sixteen or fifteen mechanized worships. When completed, they will be able to repair as many as 475 tractors and combine harvesters each year in addition to making other farm tools and spare parts.

There are scattered reports on other industrial developments in Sinkiang, such as: (1) the August First Iron and Steel Plant, (2) the October Motor Car Repair and Assembly Shop, (3) the Urumchi Automatic Electric Plant, (4) the modernized August First Flour Mill, (5) the Khotan Silk Factory, (6) Houcheng Airplane Manufacturing Factory, and (7) more than a dozen animal products processing plants, which process skins, furs and intestines for the purpose of exporting them to the Soviet Union. But detailed information on these projects is not available.

5. Handicrafts.

The foregoing analysis concerns itself with the development of modern industries in the Northwest under the Communist regime. But handicrafts still play a very important role in this area as they do in other parts of the country. According to a 1951 report, the main handicrafts in the Northwest were as follows:

(1) Cotton cloth. A side line of the peasant, it was produced practically everywhere in the area. However, the more important producing districts are: 1. Sian, Paochi, in Shensi, 2. Tienshui, Ho-hsi and Min-chin in Kansu, and 3. Turfan, toqsun and Aqsu in Sinkiang. In terms of quantities, the total annual output in Shensi is approximately 3,779,670 pieces; in Kansu, 3,505,760 pieces; in Sinkiang, 4,400,000 pieces.

(2) Pottery. The annual output of pottery in the Northwest amounts to over 4,000,000 pieces. Of that amount Shensi produces more than 3,000,000 pieces, Kansu, 500,000, Ninghsia, 200,000, and Sinkiang, 50,000. The more famous pottery-producing districts are: 1. Huang-pao-chen and Chen-lu-chen in Tung-chuan, Shensi, which have been famous since the Sung Dynasty, 2. Yao-kai in Yung-teng, Kansu, 3. Ah-kan-chen, Lanchou, Kansu, and An-kou-yao, Hua-ting, Kansu. The production consists mainly of pots, bowls, tea-pots, plates and tea-cups.

(3) Paper. While paper is manufactured in many places in this area, the more important paper-producing districts are: 1. Nancheng (Han-chung), Shensi, 2. Khotan, Sinkiang, 3. K'ang-cheng and Tien-shui, Kansu, and 4. Ying-chuan, Ninghsia. The main varieties are as follows:

(a) The "rough-edge" paper. Usually used as a writing paper, it is produced and consumed mainly in Shensi. The annual output is about 192,490 bundles.

(b) The "Flax paper." It may be made of white or black flax,